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EXAMINER

STAIKOVICI, STEFAN

ART UNIT PAPER NUMBER

1732

DATE MAILED: 07/02/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/003,742

Applicant(s)

DENNIS ET AL.

Examiner

Stefan Staicovici

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-5, 13 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-12, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on November 14, 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group II, Sub-Species I (claims 6-12, 14 and 15) in Paper No. 7 is acknowledged.

### ***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: "Method for Making a Multi-Layered, Personnel-Protective Helmet Shell".
3. The abstract of the disclosure is objected to because the patent abstract is a concise statement of the technical disclosure and should include a description of a method for making a multi-layered, personnel-protective helmet shell. Correction is required. See MPEP § 608.01(b).
4. The disclosure is objected to because of the following informalities: on page 4, line 12, after "8%", "reound" should be replaced with --rebound--.

Appropriate correction is required.

### ***Drawings***

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "24a" (page 8, line 1) . A proposed drawing correction or corrected drawings are required in reply to the Office

action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "24c" (Figure 5). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

7. Claims 6-12, 14 and 15 are objected to because:

- in claims 6, 10-11, 12, 14-15, on line1, after "comprising", --:-- should be inserted;
- in claims 6-12, 14 and 15, the use of "that" and "this" to express antecedent basis should be replaced with either --the-- or --said--
- claims 11 and 14 are claims are redundant. Applicants are required to cancel the claim(s) or amend the claim(s).
- in claim 6, line 13, after the second occurrence of "to", "." Should be deleted

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1732

9. Claims 6-12, 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, it is unclear to which surface Applicants are referring by "the other one of such surfaces". Further clarification is required. It should be noted that for the purposes of examination it has been assumed that the core is sprayed on both its surfaces. Further clarification is required. Claims 7-9 are rejected as dependent claims.

Claim 10 recites the limitation "the three-dimensional configuration" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

The term "curable to semi-rigidity" in claims 11-12 and 14-15 is a relative term that renders the claim indefinite. The term "curable to semi-rigidity" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

10. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: forming in a female mold a pliable layer into a central core having a helmet shape.

#### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 11-12 and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Tao *et al.* (US Patent No. 6,536,052 B2).

Tao *et al.* ('052) teach the claimed process for making a multilayered helmet liner (shell) including, providing a flat sheet of textile material (30), forming said flat sheet into a fabric panel with cells protruding from one side of the panel (core), positioning said formed sheet onto a three-dimensional male mold (38) having the shape of a hemispherical head shape, spraying resin (curable vapor suspension deposition material) using sprayer (40) and curing said resin to form said multilayered helmet liner (shell) (see col. 8, line 48 through col. 9, line 9 and Figure 7a).

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tao *et al.* (US Patent No. 6,536,052 B2) in view of JP 07-96046.

Tao *et al.* ('052) teach the basic claimed process as described above.

Regarding claim 6, Tao *et al.* ('052) do not teach a second spraying of resin on another surface. JP 07-96046 teaches a process for making a helmet including, including spraying a resin on the interior part of said helmet (see Abstract). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a second spray on the inside of the resulting molded helmet as taught by JP 07-96046 in the process of Tao *et al.* ('052) because, JP 07-96046 teaches that such a sprayed coating provides for improved visibility and also for other reasons such as improved aesthetics, improved feel to the wearer of the helmet. Further, it should be note that both references teach similar end-products.

In regard to claim 7, Tao *et al.* ('052) teach a three-dimensional male mold (38) having the shape of a helmet (see col. 8, line 48 through col. 9, line 9 and Figure 7a).

Specifically regarding claims 8 and 9, Tao *et al.* ('052) teach a male mandrel. It is submitted that in order to spray the interior of said molded helmet as taught by the process of Tao *et al.* ('052) in view of JP 07-96046 a different mold is needed, specifically a female mold, in order to have access to said interior of said molded helmet.

#### ***Allowable Subject Matter***

15. Claim 10 would be allowable if rewritten or amended to overcome the objection and the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Art Unit: 1732

***Conclusion***

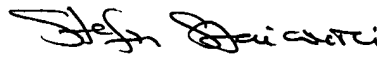
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (703) 305-0396. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM and alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino, can be reached at (703) 308-3853. The fax phone number for this Group is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Stefan Staicovici, PhD

  
Primary Examiner 6/26/03

AU 1732

June 26, 2003